ORIGINAL

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

Janice M. Scantland

Call letters *(if issued)*	Is this application being filed in response to a window? [X] Yes [ ] No If Yes, specify closing date: January 15, 1992

Purpose of Application: *(check appropriate box(es))*

- [X] Construct a new (main) facility
- [ ] Construct a new auxiliary facility
- [ ] Modify existing construction permit for main facility
- [ ] Modify existing construction permit for auxiliary facility
- [ ] Modify licensed main facility
- [ ] Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- [ ] Antenna supporting-structure height
- [ ] Effective radiated power
- [ ] Antenna height above average terrain
- [ ] Frequency
- [ ] Antenna location
- [ ] Class
- [ ] Main Studio location
- [ ] Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served:		
	City	County	State
282A	Richwood	Union	OH

Class *(check only one box below)*

[X] A [ ] B1 [ ] B [ ] C3
[ ] C2 [ ] C1 [ ] C

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

21970 Delaware County Line Road, Delaware County, Ohio

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	40°	19'	46"	Longitude	83°	14'	39"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? [ ] Yes [X] No

If Yes, give call letter(s) or file number(s) or both. _____

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

_____

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☒ Yes ☐ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Exhibit No.

Date December 5, 1991 Office where filed Great Lakes Region

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Packer, Ohio	8.8 Km	14 Deg. True
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level: 286 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 104 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 390 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 97 meters (H)

97 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] 383* meters (H)

383 meters (V)

(3) above average terrain 100 meters (H)

* Exact value 383.3 m 100 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator. Exhibit No. 1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 3 kw (H*) 3 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field. Exhibit No. DNA

____ kw (H*) ____ kw (V*)

*Polarization

DNA – Does not apply.

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed? ☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of the relative field. Exhibit No. DNA

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)? ☒ Yes ☐ No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service. Exhibit No. DNA

12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal? ☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. DNA

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207? ☒ Yes ☐ No

(b) If the answer to (a) is No, does 47 C.F.R. Section 73.213 apply? ☐ Yes ☐ No

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous waivers. Exhibit No. DNA

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short-spacing(s) and showing it on the map. Exhibit No. DNA

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings and must bear a scale of distance in kilometers.

Exhibit No. 2

16. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. 3

(a) the proposed transmitter location, and the radials along which profile graphs have been prepared;

(b) the 0.16 mV/m and 1 mV/m predicted contours; and

(c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1,815 sq. km. Population 67,549

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. DNA

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313)*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Other *(briefly summarize)*

Defense Mapping Agency (DMA) 3 arc second terrain database.

DNA – Does not apply.

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 8 to 16 km (meters)	Predicted Distances	
		To the 8.16 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
336.4	109.0	14.1	25.2
0	109.3	14.1	25.2
45	109.3	14.1	25.2
90	109.3	14.1	25.2
135	108.7	14.0	25.2
180	96.0	13.2	23.8
225	84.1	12.4	22.3
270	86.0	12.5	22.5
315	97.2	13.3	23.9

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311. Exhibit No.

If No, explain briefly why not See Engineering Statement

ENGINEERING REPORT

SILLIMAN AND SILLIMAN

8601 GEORGIA AVENUE CONSULTING ENGINEERS SILVER SPRING, MD 20910

20RICH03.T

Janice M. Scantland
Richwood, Ohio

ENGINEERING STATEMENT

Robert M. Silliman is a Registered Professional Engineer in the State of Maryland, the District of Columbia and the Commonwealth of Virginia. He has been retained by Janice M. Scantland to prepare the

SILLIMAN AND SILLIMAN

8601 GEORGIA AVENUE CONSULTING ENGINEERS SILVER SPRING, MD 20910

Janice M. Scantland
Richwood, Ohio

ENGINEERING STATEMENT (CONT'D)

Paragraph 20.

From Appendix II it is seen that there are no other FM, TV or AM stations close enough to contribute to the radiofrequency radiation level in the vicinity of the tower. The proposal is for 3 kW ERP. However, it is anticipated that the assignment might at some later date be increased to 6 kW. Hence, the EMR study has been based on 6 kW.

The proposed radiation center is 97 meters above ground. The antenna will be of "best" case as contained in OST Bulletin No. 65 Table 1 on page 37 of this document. It is seen that with a 4 bay antenna and 10 kw of power even with a "worst" case antenna the required height above ground to meet the 1000 microwatt per Sq. Cm. requirement is 18.3 meters. Hence, even with a "worst" case antenna and 6 kW the EMR level at the base of the tower would be as follows:

EMR = $6/10x(18.3/97)^2x1000=21.4$ microwatts per Sq. Cm. which is only 2.1 percent of the guideline.

With a "best" case antenna the level would be

EMR = $6/10x(5.3/97)^2x1000=1.8$ microwatts per Sq. Cm. which is only 0.2 percent of the guideline.

Since the proposed site is in a rural area, the only workers who will be permitted to approach the tower base will be radio technicians. A sign will be posted on the tower cautioning of radio frequency radiation hazard if the tower is climbed with the transmitter in operation. The permittee has adopted the policy that, when it is necessary to climb the tower, the transmitter will be shut off while a climber is on the tower.

The proposed site is not located in a restricted area and its proposed operation will be in compliance with the RF protection guidelines for humans located near the antenna supporting structure. Hence, by definition in Section 1.1306 of the FCC Rules, this proposal is deemed to have no significant effect on the quality of the human environment and is

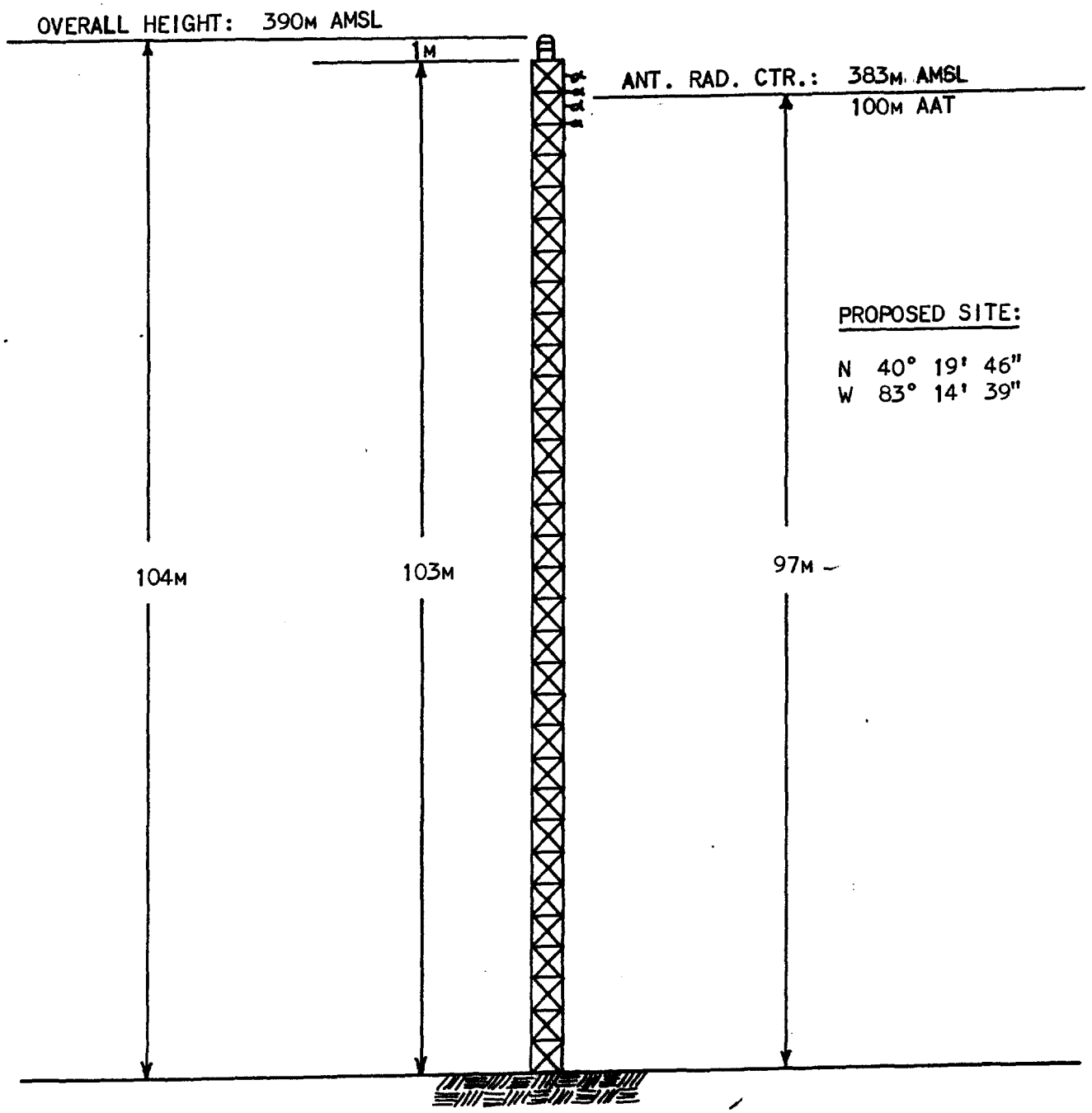


EXHIBIT NO. 1

NOT DRAWN TO SCALE

JANICE M. SCANTLAND
RICHWOOD, OHIO

VERTICAL PLAN SKETCH OF PROPOSED ANTENNA SYSTEM

DECEMBER 1991

SILLIMAN AND SILLIMAN

JANICE M. SCANTLAND
RICHWOOD, OHIO

APPENDIX 1

Silliman & Silliman

Date: 12/05/91

Study Name : FM STUDY FOR CH 282A AT RICHWOOD, OHIO
Channel : 282A
Coordinates : N 40 19 46.0 W 83 14 39.0
Separations : FM Zone 1 - Commercial

Call	City & State	Stat	File - number	Chan	ERP	HAAT	Zn	Latitude	Longitude	Bear	Dist	Req'd	Clear	Note
											--- kilometers ---			
	BOWLING GREEN OH	LIC	BLH 900925KC	228A	4.10	397	1	41 27 28.0	83 39 33.0	344.6	130.09	10.0	120.09	
WrCJ	MIAMISBURG OH	LIC	BLH 870514KA	229B	50.0	492	1	39 39 36.0	84 18 50.0	231.1	117.78	15.0	102.78	
WQIO	MOUNT VERNON OH	LIC	BLH 870625KB	229B	37.0	563	1	40 24 18.0	82 26 20.0	82.7	68.91	15.0	53.91	
WTTFFM	TIFFIN OH	LIC	BLH 850715KW	279B	50.0	430	1	41 8 20.0	83 14 45.0	359.9	89.89	69.0	20.89	
WYMJFM	BEAVERCREEK OH	LIC	BLH 841029CB	280A	1.15	522	1	39 44 12.0	84 9 25.0	230.0	101.99	31.0	70.99	
WLBCFM	MUNCIE IN	LIC	BLH 5019	281B	50.0	420	1	40 9 38.0	85 22 42.0	264.8	182.56	113.0	69.56	
WQAL	CLEVELAND OH	LIC	BLH 860219KB	281B	11.0	1060	1	41 22 45.3	81 43 12.0	47.2	173.52	113.0	60.52	
WQAL	CLEVELAND OH	CP	BPH 910826IB	281B	11.0	1060	1	41 22 45.0	81 43 12.0	47.2	173.51	113.0	60.51	
WPAYFM	PORTSMOUTH OH	LIC	BLH 890612KC	281C	100	1000	2	38 43 20.0	83 0 5.0	173.3	179.66	165.0	14.66	CLOSE
WOMC	DETROIT MI	LIC	BLH 6899	282B	190	360	1	42 28 25.0	83 6 56.0	2.5	238.37	178.0	60.37	
WELA	EAST LIVERPOOL OH	LIC	BLH 790529AB	282B	50.0	330	1	40 37 48.0	80 36 10.0	80.6	226.45	178.0	48.45	
WELA	EAST LIVERPOOL OH	APP	BPH 900626IC	282B	50.0	492	1	40 37 48.0	80 36 10.0	80.6	226.45	178.0	48.45	

JANICE M.SCANTLAND
RICHWOOD, OHIO

APPENDIX II

Silliman and Silliman
Silver Spring, MD December 4, 1991

SILLIMAN AND SILLIMAN

8601 GEORGIA AVENUE CONSULTING ENGINEERS SILVER SPRING, MD 20910

Janice M. Scantland
Richwood, Ohio

A F F I D A V I T

MONTGOMERY COUNTY)
) SS:
STATE OF MARYLAND)

ROBERT M. SILLIMAN, being duly sworn upon oath deposes and says:

That his qualifications are a matter of record with the Federal Communications Commission;

That he is a registered professional engineer in Maryland, the District of Columbia and the Commonwealth of Virginia and is a partner in the firm of Silliman and Silliman;

That this firm has been retained by Janice M. Scantland to prepare this engineering statement;

That he has either prepared or directly supervised the preparation of all technical information contained in this engineering statement and that the facts stated in this engineering statement are true of his knowledge except as to such statements as are herein stated to be on information and belief and as to such statements he believes them to be true.

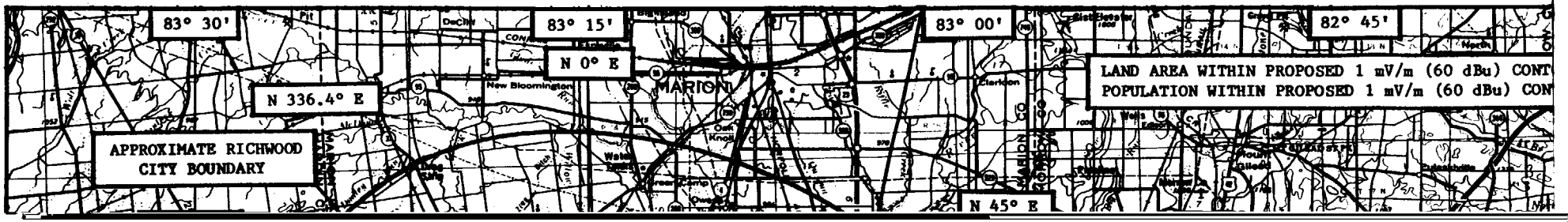
Robert M. Silliman

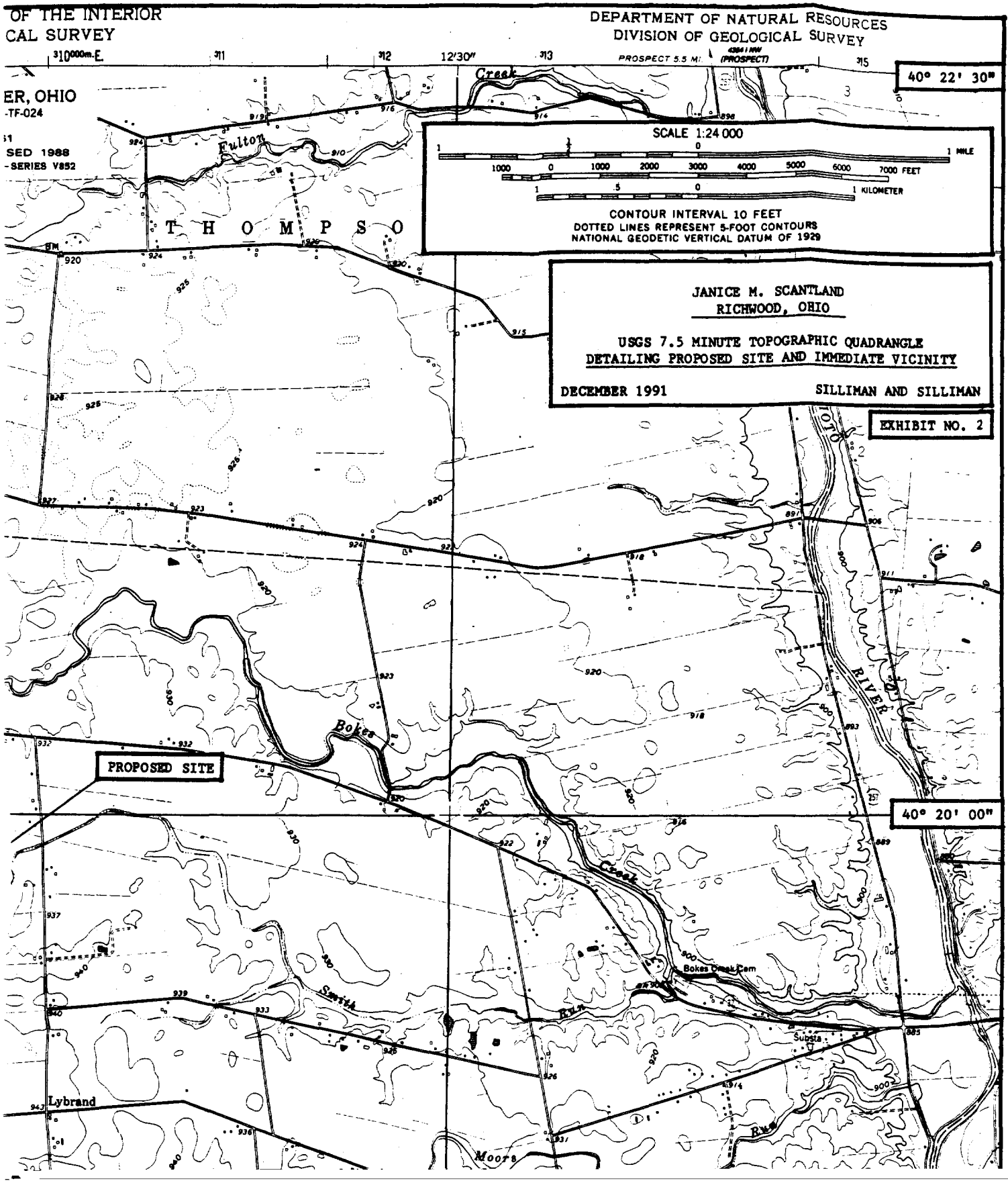
Subscribed and sworn to before me this 5th day of December 1991.

Cathy A. Ozdany, Notary Public

My Commission expires April 1, 1994.

(SEAL)


83° 30'
83° 15'
83° 00'
82° 45'
N 0° E
N 336.4° E
N 45° E
MARION
APPROXIMATE RICHWOOD CITY BOUNDARY
LAND AREA WITHIN PROPOSED 1 mV/m (60 dBu) CONT
POPULATION WITHIN PROPOSED 1 mV/m (60 dBu) CON


OF THE INTERIOR
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGICAL SURVEY
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40° 22' 30"
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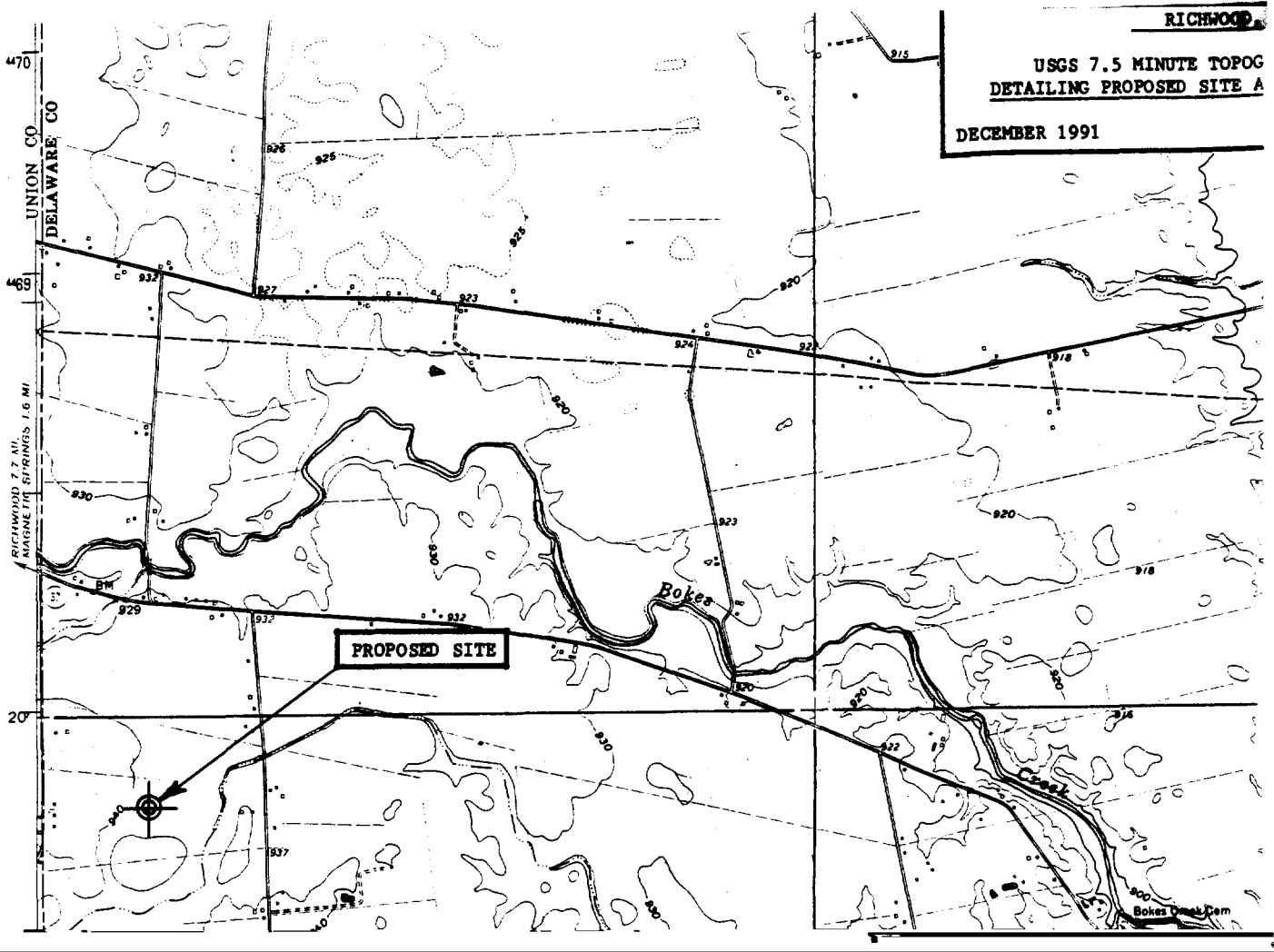
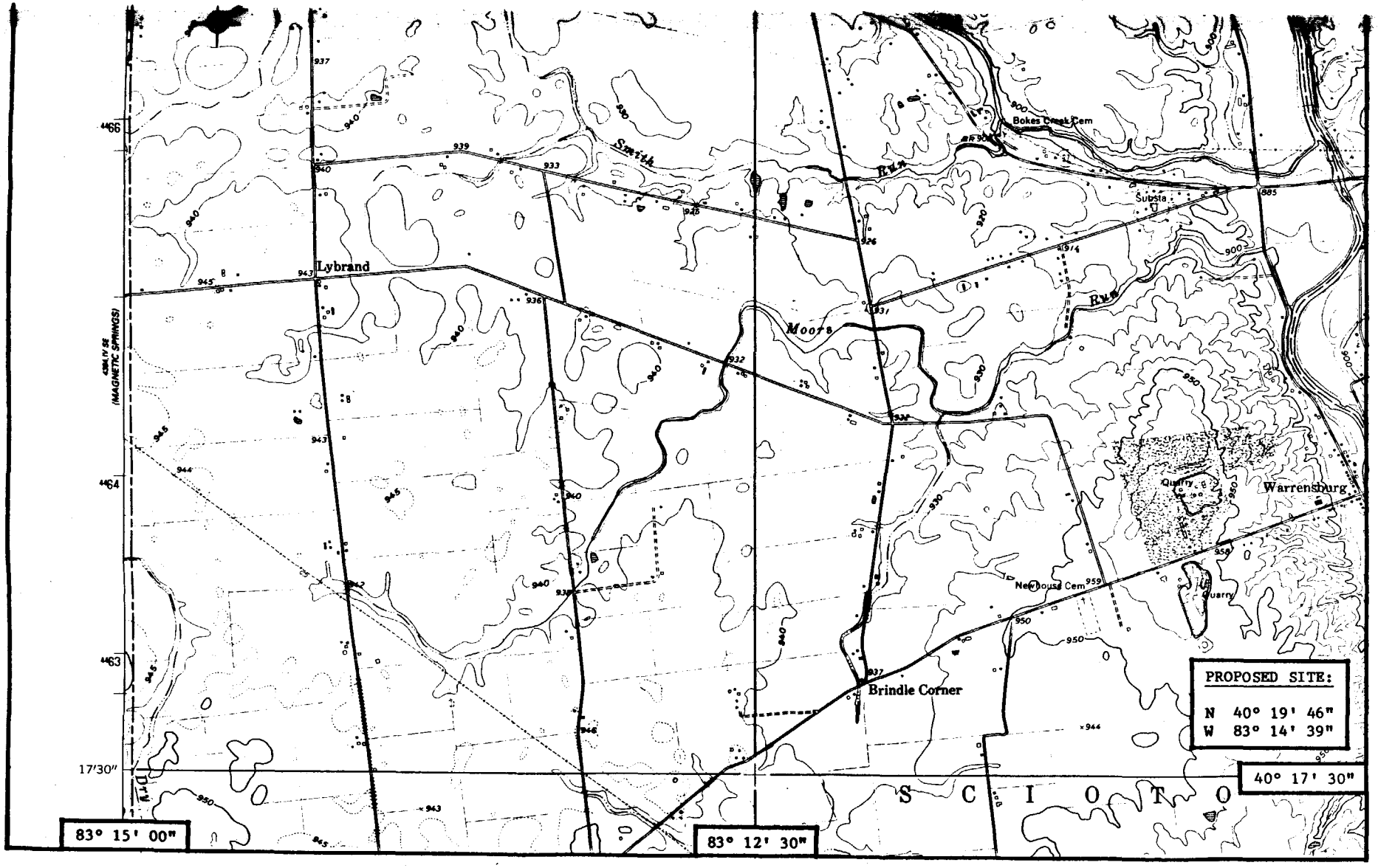
CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
JANICE M. SCANTLAND
RICHWOOD, OHIO
USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
DETAILING PROPOSED SITE AND IMMEDIATE VICINITY
DECEMBER 1991
SILLIMAN AND SILLIMAN
EXHIBIT NO. 2
PROPOSED SITE
40° 20' 00"
THOMPSO
Fulton
Creek
Bokes
Bokes Creek Com
Lybrand
Smith
RIVER
Substa
Moore

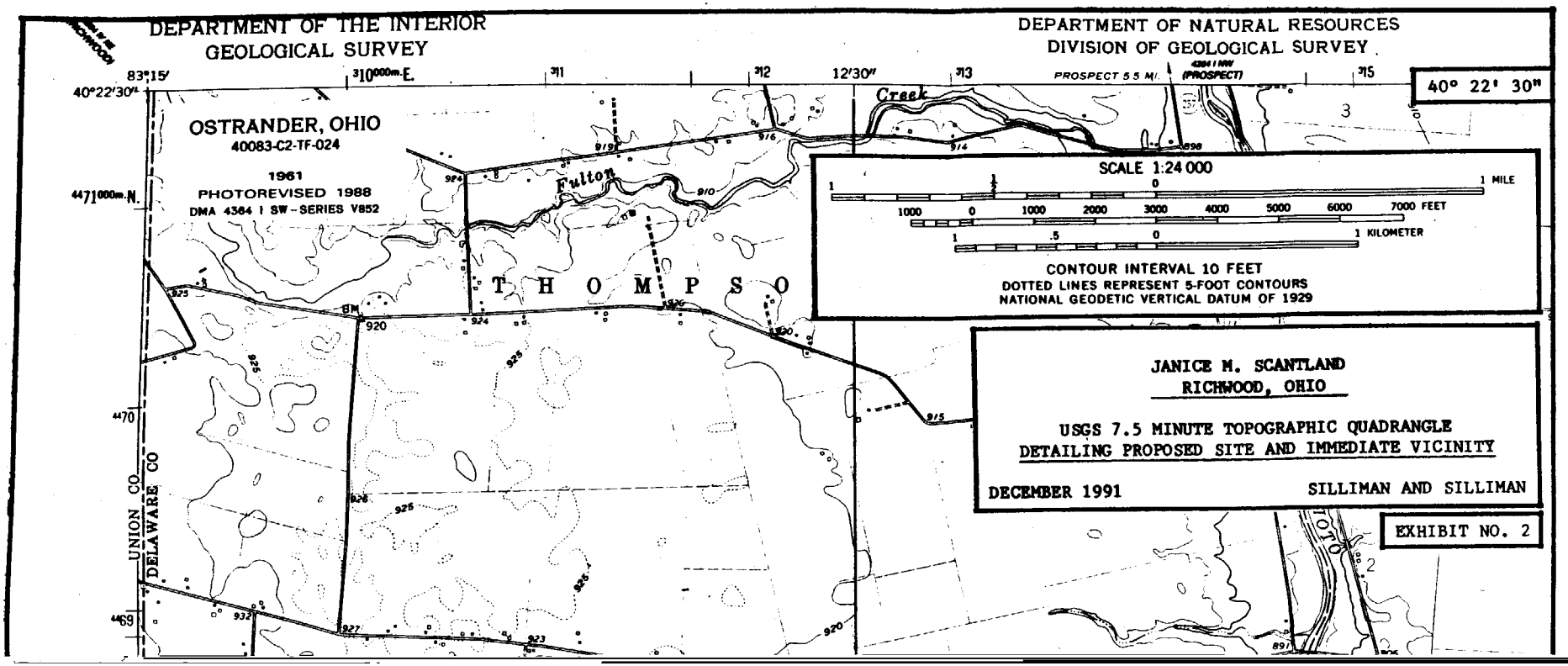
RICHWOOD

USGS 7.5 MINUTE TOPOG
DETAILING PROPOSED SITE A

DECEMBER 1991




Lybrand
Smith Run
Moore Run
Bokes Creek Cem
Substa
Warrensburg
Quarry
Quarry
Newhouse Cem
Brindle Corner
PROPOSED SITE:
N 40° 19' 46"
W 83° 14' 39"
83° 15' 00"
83° 12' 30"
40° 17' 30"
17'30"
4466
4464
4463
S C I O T O


DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGICAL SURVEY
OSTRANDER, OHIO
40083-C2-TF-024
1961
PHOTOREVISED 1988
DMA 4364 I SW-SERIES V852
40° 22' 30"
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7000 FEET
1 KILOMETER
CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
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DECEMBER 1991
SILLIMAN AND SILLIMAN
EXHIBIT NO. 2
T H O M P S O
Fulton
Creek
UNION CO
DELAWARE CO
PROSPECT 5.5 MI.
(PROSPECT)
TOTO